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EXAMINER	
SITTA, GRANT	

ART UNIT	PAPER NUMBER
2629	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/766,462	NAGAI, MASAHIKO	
	Examiner	Art Unit	
	GRANT D. SITTA	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 April 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *28 January 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 1-6, 8-15 and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bilotti et al (6,622,012) hereinafter, Bilotti, in view of Finch et al (4,365,196) hereinafter, Finch.

4. In regards to claim 1,Bilotti discloses the limitations of apparatus comprising:

first and second members movable one relative to the other (fig. 1 (12, 14 and 16));

an element mounted in one of said members which initiates an action in the apparatus (fig. 1 (18));

a detector mounted in the other of said members which responds to the proximity of and detects the intensity of interaction with said element (fig. 1 (20)); and

a processor (fig. 1 (22)).

Bilotti differs from the claimed invention in that Bilotti does not disclose an inhibitor mounted in said one of said members which selectively inhibits the intensity of interaction between said element and said detector in response to said element being moved into the proximity of the detector;

However, Finch teaches a system and method for an inhibitor (fig. 4 (9)) mounted in one of a members which selectively inhibits the intensity of interaction between an element and a detector in response to said element being moved into the proximity of the detector (col. 2, lines 16-30 and col. 3-4, lines 25-25);

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to modify Bilotti to include the use of an inhibitor mounted in said one of said members which selectively inhibits the intensity of interaction between said element and said detector in response to said element being moved into the proximity of the detector; as taught by Finch in order to improve a testing and evaluation circuit which allows a test of a proximity switch and without causing it to be blinded to an article as a result of a test (col. 1-2, lines 33-30 Finch).

Therefore, Bilotti as modified by Finch teaches a processor driving (fig. 1 (22) Bilotti Examiner notes Finch also teaches a processor fig. 4 (17)) the inhibitor (fig. 4 (9)

and col. 3-4, lines 50-25) based on an output of the detector (fig. 1 (20) Bilotti) and configured to determine whether the first member is in physical proximity to the second member based on said output (fig. 1 (12, 14 and 16) Bilotti and col. 3-4, lines 25-25).

5. In regards to claim 8, Bilotti discloses apparatus comprising:

a portable computer system body having a keyboard therein (col. 3, lines 18-30);

a portable computer system (col. 3, lines 18-30) lid having a display therein (fig. 1 (14)) ;

a coupling joining (fig. 1 (16)) said body and said lid together for movement thereof one relative to the other between open and closed positions (col. 3, lines 18-67); and

a proximity detection subsystem which determines whether said body and said lid are in the closed position (fig. 1 (18, 20 and 22)), said subsystem comprising:

an element mounted (fig. 1 (20)) in one of said body and said lid which initiates an action in the apparatus (col. 4, lines 1-37);

a detector mounted in the other of said body and said lid (fig. 1 (18)) which responds to the proximity of and detects the intensity of interaction with said element (col. 4, lines 1-37, “Hall effect device”);

Bilotti differs from the claimed invention in that Bilotti does not disclose an inhibitor mounted in said one of said body and said lid which selectively inhibits the intensity of interaction between said element and said detector in response to the element being moved into the proximity of the detector;

However, Finch teaches a system and method for an inhibitor (fig. 4 (9)) mounted in said one of said body and said lid which selectively inhibits the intensity of interaction between said element and said detector in response to the element being moved into the proximity of the detector (col. 2, lines 16-30 and col. 3-4, lines 25-25).

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to modify Bilotti to include the use of an inhibitor mounted in said one of said body and said lid which selectively inhibits the intensity of interaction between said element and said detector in response to the element being moved into the proximity of the detector as taught by Finch in order to improve a testing and evaluation circuit which allows a test of a proximity switch and without causing it to be blinded to an article as a result of a test (col. 1-2, lines 33-30 Finch).

Therefore, Bilotti as modified by Finch teaches a processor driving (fig. 1 (22) Bilotti)the inhibitor (fig. 4 (9) Finch) based on an output of the detector (fig. 1 (20) Bilotti) and configured to determine whether the lid and body are in the closed (abstract Bilotti) position based on said output(fig. 1 (12, 14 and 16) Bilotti and col. 3-4, lines 25-25 Finch)

6. In regards to claims 10 and 14, Bilotti discloses the limitations of a method comprising:

detecting reception of a signal interaction of two members coupled for movement one relative to the (fig. 1 (12 , 14, and 16)) other normally indicative of initiation of a system operation (col. 3, lines 18-30 and abstract);

detecting a physical proximity of the two members and determining the appropriateness of initiating the system operation from close proximity of the members (col. 3, lines 18-67).

Bilotti differs from the claimed invention in that Bilotti does not disclose selectively inhibiting reception of the signal interaction in response to the detected reception.

However, Finch teaches a system and method for selectively inhibiting (fig. 4 (9)) reception of the signal interaction in response to the detected reception (col. 2, lines 16-30 and col. 3-4, lines 25-25)

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to modify Bilotti to include the use of selectively inhibiting reception of the signal interaction in response to the detected reception as taught by Finch in order to improve a testing and evaluation circuit which allows a test of a proximity switch and without causing it to be blinded to an article as a result of a test (col. 1-2, lines 33-30 Finch).

7. In regards to claim 11 and 15, Bilotti discloses the limitations of a method comprising:

monitoring an output of a detector mounted in one of two members (fig. 1 (12 , 14, and 16)) coupled for movement one relative to the other based on signal interaction of an element (col. 3, lines 18-30 and abstract) in the other member with the detector ((fig. 1 18, and 20));

detecting an output normally indicative of initiation of a system operation (fig. 1 (22) and col. 3, lines 18-67);

detecting a physical proximity of the members and determining the appropriateness of initiating the system operation from close proximity of the members (col. 3, lines 18-67).

Bilotti differs from the claimed invention in that Bilotti does not disclose selectively inhibiting the signal interaction of the element with the detector in response to the detecting the signal interaction.

However, Finch teaches a system and method for selectively inhibiting the signal interaction of the element with the detector in response to the detecting the signal interaction (col. 2, lines 16-30 and col. 3-4, lines 25-25 Finch).

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to modify Bilotti to include the use of selectively inhibiting the signal interaction of the element with the detector in response to the detecting the signal interaction as taught by Finch in order to improve a testing and evaluation circuit which allows a test of a proximity switch and without causing it to be blinded to an article as a result of a test (col. 1-2, lines 33-30 Finch).

8. In regards to claim 2, Billotti teaches wherein said element is free of any necessity of application of an external source of power (fig. 1 (18)) col. 3, lines 40 “magnet”).

9. In regards to claim 3, Billotti teaches wherein said detector responds to one of an electromagnetic wave, an electric field, *a magnetic field*, corpuscular radiation, and an acoustic wave (fig. 1 (20) col. 3-4, lines 63-9).

10. In regards to claim 4, Billotti as modified by Finch teaches wherein said element is a magnet (fig. 1 (18) and col. 3, line 40 Billotti), said detector is a Hall effect switch (col. 4, lines 23-37 Billotti) responsive to imposition of a magnetic field (col. 4, lines 23-37 Billotti), and said inhibitor (fig. 4 (9) Finch) is a coil generating a magnetic field opposing the field of said magnet (fig. 13 Finch coils).

11. In regards to claim 6, Billotti teaches wherein one of said members is the lid of a portable computer system having a display therein and the other of said members is the body of a portable computer system having a keyboard therein (col. 3, lines 29-30).

12. In regards to claim 9, Billotti as modified by Finch teaches wherein said element is a magnet (fig. 1 (18) and col. 3, line 40 Billotti), said detector is a Hall effect switch (col. 4, lines 23-37 Billotto) responsive to imposition of a magnetic field (col. 4, lines 23-37 (Billotto), and said inhibitor is a coil generating a magnetic field opposing the field of said magnet ((fig. 13 Finch coils)) further comprising a microprocessor (fig. 1 (22) of

Billotti) operatively connected to control excitation of said coil ((fig. 13 Finch coils)).

13. In regards to claim 12, Billotti as modified by Finch teaches wherein the selective inhibition (col. 3, lines 45-65 Finch) of response occurs in response to detection that the members are withdrawn one from the other (col. 4, lines 10-37 of Billotti).

14. In regards to claim 13, Billotti as modified by Finch teaches wherein selective inhibition (fig. 4 (9) col. 3-4, lines 45-17 Examiner notes when the inhibitor is turned on/off is selective Finch) of response is discontinued in response to detection that the members are in close proximity one to the other (col. 4, lines 10-37 (Billotti)).

15. In regards to claim 19, Billotti further including preventing detection of the output (inherent since computers include power switches).

16. In regards to claim 20, Billotti as modified by Finch teaches wherein the inhibitor is activated by a power supply external to the inhibitor (fig. 4 (17) Finch).

17. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bilotti as modified by Finch, in view of Deczky (4,294,682) hereinafter, Deczky.

18. In regards to claim 5, Billotti as modified by Finch does not disclose wherein said element is a light source, said detector is a photoelectric device, and said inhibitor is a light shield.

However, Deczky teaches wherein said element is a light source, said detector is a photoelectric device, and said inhibitor is a light shield (col. 4, lines 12-25)

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to modify Billotti and Finch to include the use of wherein said element is a light source, said detector is a photoelectric device, and said inhibitor (col. 1, lines 30-37 and col. 5, lines 5-15 of Finch) is a light shield as taught by Deczky in order to provide use of preferred materials since optical material are not susceptible to malfunction magnetic clips and other problems as stated in Applicant's disclosure.

19. Claims 16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bilotti as modified by Finch, in view of Bartingale et. al (US 2003/0048102) hereinafter, Bartingale.

20. In regards to claim 16, Bilotti as modified by Finch disclose the limitations of claim 1 wherein the element is a magnet (fig. 1 (18) of Bilotti).

Bilotti and Finch differ from the claimed invention in that Bilotti and Finch do not disclose further including a noise magnetic field filter that filters external magnetic noise,

thereby mitigating interaction between the external magnetic noise and the detector when the first and second members are in close proximity to each other.

However, Bartingale teaches including a noise magnetic field filter that filters external magnetic noise, thereby mitigating interaction between the external magnetic noise and the detector when the first and second members are in close proximity to each other ([0040 and 0043] of Bartingale).

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to modify Bilotti and Finch to include the use of a noise magnetic field filter that filters external magnetic noise, thereby mitigating interaction between the external magnetic noise and the detector when the first and second members are in close proximity to each other as taught by Bartingale in order to remove an noise that may cause interference as stated in ([0400] of Bartingale).

21. In regards to claim 18, Bilotti as modified by Finch disclose the limitations of claim 10.

Bilotti and Finch differ from the claimed invention in that Bilotti and Finch do not disclose further including filtering noise that mimics the signal when the members are in a first position, with respect to each other, where the signal is not detected.

However, Bartingale teaches further including filtering noise that mimics the signal when the members are in a first position, with respect to each other, where the signal is not detected ([0040 and 0043] of Bartingale).

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to modify Bilotti and Finch to include the use of filtering noise that mimics the signal when the members are in a first position, with respect to each other, where the signal is not detected as taught by Bartingale in order to remove a noise that may cause interference as stated in ([0400] of Bartingale).

22. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bilotti as modified by Finch in view of Sunter et. al (US 5,323,011) hereinafter, Sunter.

23. In regards to claim 17, Bilotti as modified by Finch disclose the limitations of claim 8.

Bilotti and Finch differ from the claimed invention in that Bilotti and Finch do not disclose wherein the detector responds to corpuscular radiation.

However, Suntar teaches a system and method for wherein the detector responds to corpuscular radiation (col. 1, lines 35-46 of Suntar).

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to modify Bilotti and Finch to include the use of wherein the detector responds to corpuscular radiation as taught by Suntar in order to provide another detection means as stated in (col. 1, lines 35-46 of Suntar).

24. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bilotti as modified by Finch, in view of Lemke et. al (US 4,323,890) hereinafter, Lemke.

25. In regards to claim 7, Billotto as modified by Finch fails to expressly teaches wherein said inhibitor is responsive to a coded driving signal.

However, Lemke teaches a coded driving signal (col. 1, lines 28-30, col. 1, lines 58-64 Lemke).

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to modify Bilotti and Finch to include the use of wherein the detector responds to corpuscular radiation as taught by Lemke to ensure dependable monitoring of the switching state of switching elements. (col. 1, lines 28-30).

Therefore, Bilotti and Finch as modified by Lemke teaches wherein said inhibitor (fig. 4 (9) Finch) is responsive to a coded driving signal (col. 1, lines 45-67 Lemke) and further wherein said inhibitor (fig. 4 (9) Finch), said element and said detector cooperate in determining the physical proximity of said members one relative to the other by detection of the coded driving signal (col. 1, lines 28-30, col. 1, lines 58-64 Lemke).

Response to Arguments

26. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

27. Claim 1 states, “a processor driving the inhibitor based on an output of the detector and configured to determine whether the first member is in physical proximity

to the second member based on said output." Examiner notes proximity is based solely on "said output" from the detector. The processor does not require the cooperative determination from the inhibitor and detector to determine proximity. Therefore, even if the inhibitor of Finch was merely physically incorporated into the teachings of Bilotti, the incorporation would read on the current claim language.

Applicant is reminded the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

Under the current facts, Bilotti teaches an apparatus (notebook computer col. 1, lines 35-40) comprising first and second members (fig. 1 (14 and 12)), a detector (fig. 1 (20)), an element (fig. 1 (18)) and a processor (fig. 1 (22)).

Bilotti fails to teach a means to test the proximity switch.

Finch teaches a means to check the operation of a proximity switch. ("[T]here is provided field disturbing means for disturbing the field of the field creating means, to redistribute the field and change the magnitude of the field strength minimum without moving the position of the minimum whereby to cause the sensing means to operate, to provide a field checking facility for the field creating means by either simulating the disturbance of the field which would be caused by the proximity of the article or by changing the field while the article is in proximity" (col. 2, lines 17-30).

It would have been obvious to one of ordinary skill in the art to provide means to check the operation of a proximity switch for purposes of error free functionality.

In response to Applicant's remarks filed in Appeal Brief (4/08/2009), that a proximity switch with a test function does not selectively inhibit the intensity of the interaction between the element And the detector in response to the element being moved into the proximity of the detector. Examiner respectfully disagrees. Finch teaches a field disturbing means and simulating means (inhibitor) while the article (member) is present (abstract and col. 3-4, lines 44-37). Examiner notes the checking of the field status can be checked periodically and can coincide and thus overlap with the closing of the members, satisfying the "in response" to limitation. Examiner also notes "selectively" is a broad term and when the inhibitor in Finch turns off/on reads on the claim limitation.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Rabe et al (6,035,211)

Furuya et al (2001/0009485)

Bilotti et al (7,085,119)

Bilotti et al (6,356,741)

Hermle et al (4,433,309)

Fletcher et al (5,541,562)

Ramsden et al (5,818,222)

Keene et al (2004/0135687)

Bartingale et al (2003/0048102)

Hamel et al (4,987,366)

Christensen et al (5,648,719)

McDonald et al (5,534,849)

Woods et al (5,673,021)

Hijii et al (6,922,573)

Macovschi et al (4,866,377)

Pehrsson et al (6,314,183)

Mueller et al (4,841,163)

Muller et al (6,657,323)

Buergel et al (5,367,198)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GRANT D. SITTA whose telephone number is (571)270-1542. The examiner can normally be reached on M-F 9-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sumati Lefkowitz can be reached on 571-272-3638. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Sumati Lefkowitz/
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July 21, 2009